THE DER WEEKLY

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Industry News

Bonneville Power Administration Acting Now to Save Power for Summer and Fall

Under a current agreement with Bonneville Power Administration (BPA), aluminum smelters in the Northwest have closed operations until October 1. However, with near-drought conditions and increasing spot-market prices, BPA is seeking to extend the shut-down for up to two years to save power and avoid raising wholesale rates by at least 250 percent in the fall. The aluminum industry is a likely target for easing the power strain because of its high consumption of power. *The Wall Street Journal*, April 10, 2001, Page A2

In addition, BPA, in conjunction with other Northwest utilities, is sponsoring a regional subsidy program to urge consumers to use compact fluorescent light bulbs. The agency will distribute three million coupons valued at $6 each to receive a discount on energy efficient compact light bulbs. It is expected that the region can decrease electricity consumption by 1 MW for every 200,000 light bulbs that are installed, and the savings could increase to 4 MW during winter peak-use hours. The cost of the subsidy program to BPA would be approximately $25 per MWh, much less than buying the electricity in the wholesale market. *Electricity Daily*, April 12, 2001

Fuel Cell Appliance Commissioned in Canada

Stuart Energy Systems (SES) has delivered and commissioned a Fuel Appliance to the National Research Council's National Fuel Cell Technology Centre in Vancouver, Canada, that delivers high purity hydrogen and oxygen to be used in fuel cell R&D. According to SES, the Fuel Appliance incorporates the company's patented Double Electrode Plate water electrolysis technology, and produces and delivers up to 20 cubic meters per hour of high purity hydrogen and 10 cubic meters per hour of high purity oxygen. *PowerMarketers.com*

Public Demonstration of Fuel Cell in Texas

A 3,000-watt hydrogen fuel cell was used in a demonstration to power air quality monitoring equipment used by Texas' environmental agency. This was the first public demonstration of the fuel cell technology in the state, marking the culmination of efforts by the Texas Natural Resource Conservation Commission (TNRCC), Texaco Energy Systems Inc., DCH Technology (Enable™ Fuel Cell Corp.), Air Products Corp., Houston Advanced Research Center, IPS MeteoStar, Texas Railroad Commission, and Texas State Energy Conservation Office. The next phase of the project will involve the use of reformer technology to convert hydrocarbon fuel into electricity to fuel the equipment. *TNRCC News Release*

Edison Reaches Agreement with CA Governor

A memorandum of understanding was reached between Governor Davis and John Bryson, chairman of Southern California Edison's parent company, Edison International, under which the state would buy the utility's transmission system for $2.76 billion, and the company would repay its accumulated power bills. The Governor and other state officials are willing to offer PG&E a similar deal, however PG&E is less willing to sell its transmission system and has a larger accumulated power bill than Edison. The state also plans to negotiate an agreement with the San Diego Gas & Electric unit of Sempra Energy. *The Wall Street Journal*, April 10, 2001, p. A2

Small Power Suppliers Seek Suspension of PG&E Contracts

On April 12, four power suppliers in the San Joaquin Valley (Mid-Set, Caolinga, Salinas River, Sargent Cogeneration Cos.) asked a bankruptcy judge to suspend their contracts with PG&E and allow them to sell electricity on the open market. They claim PG&E owes them $59 million, and with debt building at $333,000 a day, they will go out of business unless they can start selling to others at higher prices. PG&E officials responded with an offer to start making twice-monthly payments next week. The judge said there was no emergency requiring a speedy decision on the contracts and postponed the matter until May 10. *Los Angeles Times*, April 13, 2001

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POWER CRUNCH

Great River Energy Conducts Microturbine Testing in Elk River, Minnesota

The Cooperative Research Network, the Electric Power Research Institute (EPRI), and the U.S. DOE are funding the testing of a 30 kw microturbine at Great River Energy's Elk River Station in Minnesota. The project will test the machine's reliability and determine its maintenance requirements. The microturbine, which was manufactured by Capstone Turbine Corp., is fueled by natural gas and is about the size of a refrigerator. The generator will be on site for at least two years, and Great River Energy will send data from the test to EPRI on a monthly basis.

Elk River, Minnesota

Capstone Microturbine ™

According to Wayne Hanson, overseer for the project for Great River Energy, the company "already know[s] that microturbines are reliable electric generators that produce few emissions and require very little maintenance. These tests will provide...more detailed information...and may well become a very important part of the services [their] customers will want." Great River Energy is a consumer-owned generation and transmission cooperative and Minnesota's second largest utility in terms of generation capacity.

Sources: *PowerMarketers.com;* Press Release, Great River Energy, April 9, 2001
Capstone, *www.capstoneturbine.com;* Greater Elk River Area Community Web Server, *www.elknet.com*

Caterpillar Expects Boost in Production, Sales

Caterpillar, Inc. announced on April 9 that it expects to increase production of its power generation equipment by 30 percent this year, with sales in its electrical power division increasing to $3.3 billion, up $8 million from last year. The company says the boost in production and sales is due to electrical shortages in California and other Western states.
PowerMarketers.com

BP Amoco Brings Solar Power to Remote Villages in Philippines

BP Amoco has launched the world's largest solar energy project, promising to bring electricity to 150 remote villages in the Philippines. The Spanish government will help finance the $48 million project, expected to supply solar power to 400,000 people. The project will be implemented in two phases. The first phase includes installing solar generation in 70 villages in September of this year, and the second phase will complete installation for the rest of the villages, starting in 2003.
Grist Magazine, April 3, 2001

New York Power Authority Given OK to Move Ahead on Seven Small Power Plants

The New York State Supreme Court dismissed the lawsuit brought by environmental and neighborhood groups seeking to halt the construction of seven small power plants in the New York city area. Sixty possible sites were evaluated for the generators, which will use a total of 10 gas-fired turbines and have a total capacity of approximately 400 MW of power. Collectively, the small power plants will cost about $500 million. *The Wall Street Journal,* April 9, 2001, page B9

DOE News

Bill Parks Speaks at American Gas Association Microturbine Event

Representing the Department of Energy, Bill Parks and Debbie Haught attended a microturbine event at the American Gas Association (AGA) on April 11. The speakers included Dave Parker, President & CEO AGA; Bill Parks; Kevin Duggan, Capstone Turbine Corp; Heidi Pursley, Honeywell Power Systems; and Tony Occhionero, Executive Director, American Gas Cooling Center. Topics of discussion included the benefits and opportunities for DER and microturbines, status of manufacturers, barriers to DER in the marketplace, and opportunities for integrated systems for combined heat and power and gas cooling. AGA, which is located in Northwest Washington, DC, has a Capstone microturbine on display in their lobby.

NREL, DOE Sponsor Brown Bag: "Renewable Energy and The California Power Crisis"

On Thursday, April 12, Dr. Jan Hamrin of the Center for Resource Solutions (CRS) spoke at a "brown bag" seminar co-sponsored by the National Renewable Energy Laboratory (NREL) and the U.S. Department of Energy, with about 70 people in attendance. In her presentation entitled "Renewable Energy and the California Power Crisis," Dr. Hamrin described some of the factors that have contributed to the current power situation in California, including supply and demand imbalances, natural gas market changes, and a flawed "deregulation" model. In addition, Dr. Hamrin discussed the role of renewable energy in providing solutions to the crisis, noting that the state would be much worse off right now had it not implemented conservation and energy efficiency programs when it did.

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Policy News

FERC Rules in Favor of Iowa Net Metering

In a March 28 decision, the Federal Energy Regulatory Committee (FERC) rejected MidAmerican Energy Company's challenge to Iowa's net metering rule (FERC Order 94). MidAmerican's argument was based on a question of whether electricity flowing to a utility from an individual generating power for his own use constitutes a sale, or if the individual is banking on the excess generation for later use. MidAmerican claims that if the power seller were considered a qualifying facility, net metering would violate the Public Utility Regulatory Policy Act of 1978 (PURPA) by forcing utilities to purchase the excess power at a price in excess of the utility's avoided cost of power. FERC found that no sale occurs when an individual installs a facility and sets up net billing. MidAmerican wants to pay a fraction of the price to the individual based on its own cost of producing electricity (which includes overhead), and is considering filing an appeal on the federal ruling. *Wind Energy Weekly*, April 6, 2001; *PowerMarketers.com*

California Energy Bills Signed into Law

Two pieces of legislation enacting an energy efficiency and demand reduction program (ABX1 29 and SBX1 5), providing more than $850 million for energy conservation and distributed generation programs, were signed into law in California on Wednesday. The program is designed to conserve more than 2,000 MW this summer. This new legislation, combined with several existing conservation programs including the "20/20 Program" announced in March, puts California on track to reach the goal of saving 5000 MW during peak demand this summer. *Office of the Governor of California; Reuters, April 11, 2001*

By the Numbers

Percent of expected growth in demand for electricity through 2020 (annual)

1.9	**Residential Demand**
2.0	**Commercial Demand**
1.4	**Industrial Demand**

Generating capacity from gas turbines and internal combustion engines is expected to increase from 75 gigawatts in 1999 to 211 gigawatts in 2020.

EIA, Annual Energy Outlook 2001, page 72

Environmental News

American Rivers Report Lists Top Ten Most Endangered U.S. Rivers

American Rivers released a report on April 11 ranking the conditions of U.S. rivers based on threats they face and whether a pending public policy decision will magnify or eliminate the threats. The group cites traditional methods of producing and consuming energy as having negative affects on rivers, and recommends increased efforts to use energy efficiency, and to expand the supply of energy from clean and renewable energy resources.

Environmental News Network, April 12, 2001

The top ten rivers deemed most endangered by American Rivers are:

Source: American Rivers

Missouri River	Mississippi River
Canning River	Big Sandy River
Eel River	Snoqualmie River
Hudson River	Animas River
Powder River	Lewis River

Offshore Wind Farms Part of UK Energy Plan

Eighteen wind farm developers in the United Kingdom have prequalified to obtain leases from the Crown Estate for development of offshore wind farms. If all the sites move forward with their construction, between 1,000 and 1,500 MW of power could be generated, and more than 4.4 million tons of CO_2 emissions could be cut. The project area is about four to five miles from the shoreline and will be barely visible from land. Each lease covers 3.8 square miles and can accommodate up to 30 wind turbines. *Environ. News Network*, April 11, 2001

Blyth Harbour, the UK's first offshore wind farm, located in Northumberland, was commissioned in December 2000. It is subject to the full forces of the North Sea, capable of generating 2 MW of electricity.

Photo: Blyth Offshore Wind Limited

CALENDAR OF EVENTS

Date	Event	Location	Other Information
		APRIL 2001	
17	OPT Analysis Brownbag– Dr. Backus, Policy Assessment	Washington, DC	Tina Kaarsberg; tina.kaarsberg@ee.doe.gov
18-19	ORNL Congressional Tour	Oak Ridge, TN	Vernellia.Johnson@ee.doe.gov
19-20	Leveraging Combined Heat and Power Technologies	Denver, CO	steve_sargent@nrel.gov
21-25	Forum 2001 — Solar Energy: The Power to Choose	Washington, DC	www.solarenergyforum.org
23	Wind Energy for Northwest Public Power – Issues and Policies	Portland, OR	www.nwppa.org
23-25	Intertech's Fifth International Conference on Distributed Power	Washington, D.C.	Hugh Olmstead; olmstead@intertechusa.com; 207-281-9606
24-25	Utility Wind Interest Group Annual Meeting	Portland, OR	www.uwig.org
30-May 5	Affordable Comfort Conference: Home Peformance Strategies	Milwaukee, WI	www.affordablecomfort.org
30-May 1	Peak Load Management Alliance Conference	Washington, DC	Co-sponsored by AESP International eboardman@aesp.org, 561-432-8000
		MAY 2001	
1-3	Industrial Energy Technology Conf.	Houston, TX	jim@esl.tamu.edu
2-4	National Community Action Foundation's Legislative Conf.	Washington, DC	www.ncaf.org/ Secretary Abraham invited to speak
3	Oklahoma Wind Workshop	Oklahoma City, OK	http://conferencepros.com/windpower/
9-10	Second Int'l CHP Symposium	Amsterdam, Netherlands	www.2ndCHPsymposium.com; Bob Dixon invited to speak
7-9	The 21st Annual Utility Energy Forum	Tahoe City, CA	Gnelson181@aol.com
9-10	Energy Management Conference	San Diego, CA	Sponsored by FEMP; www.aeecenter.org
9-11	GasMart Power 2001	Tampa, FL	www.gasmart.com or (800) 427-5747
13-16	Seventh Annual National Clean Cities Conference	Philadelphia, PA	Clean Cities Hotline: 800-224-8437 www.ccities.doe.gov/conference.shtml
21-23	Third Annual ICEPAG Conference	Newport Beach, CA	www.parcon.uci.edu/colloquium
24-25	Conference on Hybrid Systems	Newport Beach, CA	www.parcon.uci.edu/colloquium
30-31	Fuel Cells Codes & Standards Summit V	College Park, MD	ronald.fiskum@ee.doe.gov
31	Idaho Geothermal Energy Stakeholders Workshop	Boise, ID	www.eren.doe.gov/geopoweringthewest/

***Source: *California Electricity Issues,* presentation by William J. Keese, Chairman, California Energy Commission, April 5, 2001, National Governors' Association Conference**

CALENDAR OF EVENTS

JUNE 2001			
3-6	FEMP Energy 2001 Conference	Kansas City, MO	www.energy2001.ee.doe.gov
3-7	WindPower 2001 Conference	Washington, DC	www.awea.org; laura_keelan@awea.org
4-6	Advanced Technology Program National Institute of Standards and Technology — National Meeting	Baltimore, MD	www.atp.nist.gov/nationalmeeting
4-7	ASME Turbo Expo-Land, Sea, and Air	New Orleans, LA	www.asme.org/igti; Debbie Haught is organizing a microturbine panel
4-7	International Joint Power Generation Conference & Expo	New Orleans, LA	www.asme.org/conf/ijpgc01; Debbie Haught is presenting
11	Fuel Cell Transportation Technology Summit	San Jose, CA	Sandra Gadzia; gadzia@sae.org
11-13	International Symposium on Distributed Generation: Power System and Market Aspects	Stockholm, Sweden	www.ekc.kth.se/ees/workshop/DG.htm
18-20	APPA National Conference	Washington, DC	www.appanet.org
26	Congressional Fuel Cell Exposition	Washington, DC	More information will be available at a later date.
JULY 2001			
10-12	Gas Storage Workshop	Kingston, Ontario	David Quinn; quinn-d@rmc.ca
16-19	2001 National Workshop on State Building Energy Codes	Burlington, VT	www.eren.doe/gov/buildings/codes_standards/buildings/2001natl_workshop.html
24-27	ACEEE Summer Study	Tarrytown, NY	www.aceee.org; Rebecca Lunetta 302-292-3966
31-Aug. 1	Green Power Conference	Portland, OR	Tina Kaarsberg; tina.kaarsberg@ee.doe.gov
AUGUST 2001			
21-24	International Energy Program Evaluation Conference	Salt Lake City, UT	608-835-6880; marymcc@tds.net
29-Sep. 3	IEEC Integrated Energy Efficiency Congress	Cleveland, OH	Sponsored in part by FEMP; www.aeecenter.org
OCTOBER 2001			
24-26	World Energy Engineering Congress	Atlanta, GA	www.agcc.org